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Approved For Release 2000/09/01 : CIA-RDP81B00878R000200050084-8

CMCC: 151x5.539

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SARC 15589  
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*Commo* *CRJ*

May 7, 1957

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To:

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DOCUMENT NO.  
NO CHANGE IN CLASS. ☐  
DECLASSIFIED  
CLASS. CHANGED TO: TS  
NEXT REVIEW DATE:  
AUTH: HR 70-2  
DATE: 4/4/91 REVIEWER: 037169

25X1A

From:

Subject: Reply to Field Report CMCC 152x5.90

A. The inclusion of a 20,000 ohm resistor in series with the pulse line, of System Three, was strictly an interim solution to the problem of preventing recorder bias from causing lock-off, and was incorporated in only one system. The permanent solution to this problem which has been adopted is the inclusion of a trap filter in each of the output lines of the receiver, this filter assembly being provided as a modification kit. These kits have been shipped by the factory. The inclusion of this kit in the System Three receiver will permit marker pulses of full amplitude to appear at the test set input, and hence the test set should not then require modification; therefore, no changes will be made at the factory in regard to the input circuit of the test set unless further field reports indicate otherwise.

In reference to specific changes indicated, 1) it has not been found necessary to provide a 1000 ohm resistor or dummy termination plug; 2) CR2001 in the input of V2001A performs a function of removing positive pulses (lock-on pulses) from the input of V2001A, since if this is permitted, the resultant negative pulses at the plate of V2001A would cause false operation of the one shot (V2008).

B. The elimination of the h-f attenuator in the test set would not be consistent with the principle of use upon which the design of the test set is based, in which the main function of the test set was to provide primarily a final preflight checkout capability. Included in the preflight checkout should be a final check of the receiver sensitivity at selected spot frequencies in each channel. The test set was not designed to replace laboratory test equipment which would make more detailed measurements, such as checking sensitivity at band edges. If the present concept of preflight checkout as described is invalid in the light of experience, then a review of this concept and of the entire test set would probably be required.

C. As indicated in an earlier memo, which by now has probably been received in the field, receivers are now being adjusted individually to maximum sensitivity consistent with avoiding full lock-on.

D and E. Standoff posts and coil adjustment tools have been shipped.

*File - A-101 D & E*

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Reply to Field Report CMCC: 152x5.90 (cont'd)

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F. It is possible that in some of the early systems the first L. O. frequency may have been slightly off. This problem is not being encountered in present production units, and hence no advice seems applicable. In such instances, it is useful to know in which particular channels this difficulty occurs, in terms of the assistance rendered to design improvement.

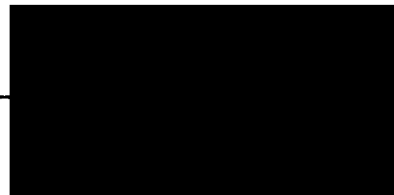
G. The test set read-recycle switch was designed to facilitate trouble shooting with the sustained use of a repetitive pulse train, in which instance, both hands of the operator would be occupied in the trouble shooting procedure. If the need for a pushbutton switch can be explained more explicitly, perhaps this problem can be reviewed further.

H. The rapid shift of a first L. O. frequency has been known to occur, and is believed to be attributable to temperature effects. This is being investigated currently.

I. In regard to critical adjustment of test set h-f oscillators, the mechanical mounting of the trimmer capacitors to include a standoff which eliminates mechanical stress is believed to allow the setting of frequencies to better than 10 kc without great difficulty. This problem, however, is being reviewed for possible further improvement.

As an additional miscellaneous comment, R2029 should be changed from 1 megohm to 47 kohm in the test set.

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